

AMENDMENT AND RESPONSE

PAGE 10

Serial No.: 10/777,955

Filing Date: 2/12/2004

Attorney Docket No. 125.025US02

Title: ELECTROLUMINESCENT DRIVER CIRCUIT

REMARKS

Applicant has reviewed the Office Action mailed on November 30, 2004 as well as the art cited. Claims, 1, 2, 4-10, 18, 36 and 38 have been amended. Claims 1-40 are pending in this application.

Claim Objections

Claims 4 and 5 have been amended pursuant to the Examiner's request. Accordingly, the Applicant respectfully requests the withdrawal of the rejection of claims 4 and 5.

Rejections Under 35 U.S.C. § 102

Claims 1-2, 18-20, 22-25, 27-31 and 36-40 were rejected under 35 USC § 102(b) as being anticipated by Andersson, (U.S. Patent No. 6,157,138). To establish a section 102 rejection, a single reference must teach every aspect of the claim either explicitly or inherently. MPEP 706(02).

Regarding independent Claim 1, Claim 1 has been amended to further clarify the differences over the prior art.

Claim 1 is as follows:

1. (Currently Amended) A method of operating an EL-lamp circuit, the method comprising:
storing energy on a first electrode of a EL-lamp with a power supply during a charging cycle; and
pumping the energy stored on the first electrode to a positive terminal of the power supply during a discharging cycle.

The Andersson reference does not teach "pumping the energy stored ... to a positive terminal of the power supply during a discharging cycle," as is now claimed in Claim 1, of the present application. For example, referring to Figure 3 of the present application an illustration of the pumping energy in one embodiment can easily be provided. The pumping in this

AMENDMENT AND RESPONSE

PAGE 11

Serial No.: 10/777,955

Filing Date: 2/12/2004

Attorney Docket No. 125.025US02

Title: ELECTROLUMINESCENT DRIVER CIRCUIT

embodiment is accomplished with transistor 320 and discharging transistor 306. Assume that side 309 of the load is charged positively at the start of a discharge cycle. Transistor 320 is turned on and current will start to flow through diode 314 and 322 and inductor 306 into the positive terminal of the battery 310. Transistor is then turned off. Since, current through an inductor cannot change instantaneously, the current will continue to flow for some time through diode 326 and the inductor 306 into the positive terminal of the battery 310. The timing is set so that the current through the discharging inductor 306 does not have sufficient time to return to zero before transistor 320 is turned on again. With this arrangement more charge than is stored on the load 308 is returned to the battery. On the other half cycle the discharge is accomplished in a like manner through diode 316. This is pumping of energy is described in paragraphs 36 and 37 of the present application. The Andersson reference includes inductor 34 of Figure 3 which relates to a dampening circuit that includes resistor 38. Please see Column 5, lines 9 through 15 and Column 2, lines 4-14 of the Andersson reference. The Andersson references, however, does not teach the pumping of energy as is claimed in Claim 1 of the present application.

Accordingly, the Applicant respectfully requests the withdrawal of the rejection of Claim 1 under section 102. Moreover, the Applicant further requests the withdrawal of rejections to claims that depend from Claim 1 since these dependant claims further define patentably distinct Claim 1. Since, the Applicant believes these dependant claims are allowable for the above reasons, responses to all rejections to these claims may not have been put forth in this response. The Applicant, however, retains the right to address said rejections if a further response is required.

Regarding independent Claim 18, Claim 18 has been amended to further clarify the differences over the prior art.

18. (Currently amended) A method of operating an EL-lamp circuit, the method comprising:
storing energy from a power supply on an EL-lamp during a charging cycle; and
returning energy stored on the EL-lamp to the power supply during a discharge cycle via inductive pumping.

AMENDMENT AND RESPONSE

PAGE 12

Serial No.: 10/777,955

Filing Date: 2/12/2004

Attorney Docket No. 125.025US02

Title: ELECTROLUMINESCENT DRIVER CIRCUIT

The Andersson reference does not teach ""returning stored energy ... via inductive pumping," as is now claimed in Claim 18 of the present invention. Please see the explanation and argument put forth in regards to Claim 1.

Accordingly, the Applicant respectfully requests the withdrawal of the rejection of Claim 18 under section 102. Moreover, the Applicant further requests the withdrawal of rejections to claims that depend from Claim 18 since these dependant claims further define patentably distinct Claim 18. Since, the Applicant believes these dependant claims are allowable for the above reasons, responses to all rejections to these claims may not have been put forth in this response. The Applicant, however, retains the right to address said rejections if a further response is required.

Regarding independent Claim 36, the Applicant has amended Claim 36. Claim 36 is as follows:

36. (Currently amended) A method of operating an EL-lamp circuit, the method comprising:
selectively providing a charging path from a power supply to the EL-lamp during a charging cycle;
cycling a first transistor in response to a first digital signal during the charging cycle;
storing energy from a power supply on an EL-lamp during the charging cycle;
selectively providing a discharging path ~~from~~ from the EL-lamp to the power supply during a discharging cycle;
cycling a second transistor in response to a second digital signal during the discharging cycle; and
returning energy stored on the EL-lamp to the power supply during the discharge cycle via inductive energy pumping.

AMENDMENT AND RESPONSE

PAGE 13

Serial No.: 10/777,955

Filing Date: 2/12/2004

Attorney Docket No. 125.025US02

Title: ELECTROLUMINESCENT DRIVER CIRCUIT

The Andersson reference does not teach ""returning stored energy ... via inductive energy pumping," as is now claimed in Claim 36 of the present invention. Please see the explanation and argument put forth in regards to Claim 1.

Accordingly, the Applicant respectfully requests the withdrawal of the rejection of Claim 36 under section 102. Moreover, the Applicant further requests the withdrawal of rejections to claims that depend from Claim 36 since these dependant claims further define patentably distinct Claim 36. Since, the Applicant believes these dependant claims are allowable for the above reasons, responses to all rejections to these claims may not have been put forth in this response. The Applicant, however, retains the right to address said rejections if a further response is required.

Allowable Subject Matter

Claims 6-17 are allowed.

Claims 3-5, 21, 26 and 33-35 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

AMENDMENT AND RESPONSE**PAGE 14**

Serial No.: 10/777,955

Filing Date: 2/12/2004

Attorney Docket No. 125.025US02

Title: ELECTROLUMINESCENT DRIVER CIRCUIT**CONCLUSION**

Applicant respectfully submits that claims 1-40 are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at 612-455-1690.

Respectfully submitted,

Date: 3-28-05
Scott V. Lundberg
Reg. No. 41,958

Attorneys for Applicant
Fogg and Associates, LLC
P.O. Box 581339
Minneapolis, MN 55458-1339
T - (612) 332-4720
F - (612) 332-4731